



Westinghouse
Electric Corporation

Energy Systems

Box 355
Pittsburgh Pennsylvania 15230-0355

DCP/NRC1045
NSD-NRC-97-5336
Docket No.: 52-003

September 19, 1997

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: T. R. QUAY

SUBJECT: PRESSURIZER HEATER BLOCK IMPLEMENTATION

Dear Mr. Quay:

The Westinghouse AP600 Change Control Board recently approved implementation of an AP600 design change related to the pressurizer heater control logic. Although no SSAR design description is affected by this change, Section 2.2 of the AP600 Design Change Description Report, dated February 15, 1994, provided the NRC with a pressurizer heater control logic description which is being modified. Therefore, Westinghouse considers it appropriate to advise the NRC of the change.

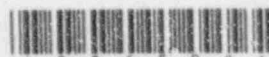
The February, 1994, design change provided an automatic block of heater operation upon receipt of a core makeup tank (CMT) actuation signal. This logic was to be implemented by taking isolated CMT actuation signals from the protection and safety monitoring system (PMS) to the plant control system (PLS). However, since some SSAR Chapter 15 safety analyses take credit for this function, it should be tolerant of single credible failures. Since the PLS cannot ensure single failure tolerance, a design change is being implemented to define a pressurizer heater block function that will tolerate a complete failure of the PLS by providing one channel which does not require the PLS.

The pressurizer heater block function will be performed by the PMS, which will provide five discrete output signals from one division (Division A) and one discrete signal from a second division (Division C). These signals will be non-Class 1E and provided by the PMS through a qualified isolation device. The signals from Division A will go directly via interposing relays to the load center circuit breakers. The single PMS signal from Division C will go to a PLS controller near the pressurizer heater motor control centers (MCCs) which will provide appropriate signals to the MCCs to trip the individual circuit breakers.

The SSAR (including the Technical Specifications) are not impacted by this change. In addition, although the implementation is different than previously designed, this proposed implementation is more reliable with two diverse trip channels. Therefore, the current PRA results remain conservative with respect to reanalysis considering this logic change.

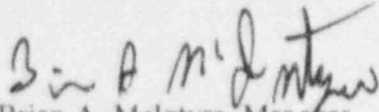
9709290107 970919
PDR ADDCK 05200003
E PDR

E004/10



September 19, 1997

Please contact Thomas Hayes at 412-374-4420 if you have any questions regarding the subject design change.



Brian A. McIntyre, Manager
Advanced Plant Safety and Licensing

jml

cc: T. K. Kenyon, NRC/NRR/PDST
R. K. Nydes, Westinghouse
N. J. Liparulo, Westinghouse